

Essay

Conflicts and Financial Collapse: The Problem of Secondary-Management Agency Costs

Steven L. Schwarcz[†]

Corporate governance scholarship has long focused on conflicts of interest between firms and their top executive officers. This Essay contends that increasing leverage and financial complexity make it important for scholars also to focus on conflicts of interest between firms and their secondary managers.

Introduction

I have recently argued that financial market failures can be attributed, in large part,¹ to three causes: conflicts, complacency, and complexity.² This Essay engages the first cause, focusing on a subset of conflicts that in the past has been regarded as relatively harmless: conflicts between a firm and its middle- to lower-level management (hereinafter “secondary management” or “secondary managers”). The Essay’s thesis is that, as financial markets and the

[†] Stanley A. Star Professor of Law and Business, Duke University School of Law; Founding/Co-Academic Director, Duke Global Capital Markets Center. E-mail: schwarcz@law.duke.edu. The author thanks participants in the Weil, Gotshal & Manges Roundtable on The Future of Financial Regulation, co-sponsored by the Yale Journal on Regulation and the Yale Law School Center for the Study of Corporate Law, as well as William Bratton and Deborah DeMott, for valuable comments, and Nikhil S. Palekar and Arman Tasheneff for excellent research assistance.

1 Systemic financial market failures also can be attributed to a type of tragedy of the commons: because the benefits of exploiting finite capital resources accrue to individual market participants whereas the costs of exploitation, which affect the real economy, are distributed among an even wider class of persons, market participants have insufficient incentives to internalize their externalities. Therefore, even in a simple financial system with no conflicts and hyper-diligent market participants (that is, a financial system with none of the causes of failure indicated *infra* note 2 and accompanying text), systemic risk is theoretically possible. Steven L. Schwarcz, *Understanding the ‘Subprime’ Financial Crisis*, 60 S.C. L. REV. (forthcoming 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1288687 [hereinafter Schwarcz, *Understanding the ‘Subprime’ Financial Crisis*]. For a general analysis of systemic risk, see Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193 (2008) [hereinafter Schwarcz, *Systemic Risk*].

2 Steven L. Schwarcz, *Protecting Financial Markets: Lessons from the Subprime Mortgage Meltdown*, 93 MINN. L. REV. 373 (2008) [hereinafter Schwarcz, *Protecting Financial Markets*]. Running throughout these causes is a fourth cause, cupidity; but because greed is so ingrained in human nature and so intertwined with the other causes, it adds little insight to view it separately.

securities traded therein become more complex and as firms become more highly leveraged, these conflicts are increasingly likely to trigger the collapse of firms that invest in those securities and possibly also of the markets themselves.

Corporate governance scholarship has long grappled with conflicts of interest between a firm (meaning its owners, typically shareholders) and the firm's top managers, such as chief executive officers. Costs associated with this conflict are referred to as agency costs because managers are agents of the firm. It is widely acknowledged that top managers sometimes act to benefit themselves, to the detriment of the firm.³ To mitigate these agency costs, corporate governance scholars traditionally focus on two topics: (1) reducing top-management conflicts of interest, and (2) improving board governance.⁴

Scholars have largely ignored, however, conflicts of interest between a firm and its secondary managers.⁵ There appear to be several reasons for this oversight. Most obviously, secondary managers report to, and thus are already theoretically subject to control by, top managers. Moreover, to the extent decisions of secondary managers are not deemed to be pivotal to the direction of a firm or its strategic goals, the consequences of secondary-management conflicts would not be deemed—and in the past probably were not—significant.

This Essay contends that the increasing complexity of financial markets and of the securities traded therein makes secondary managers more likely to

3 The classic text is ADOLF A. BERLE & GARDINER C. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* (1932) (arguing that although shareholders rely on the board of directors to represent their interests, boards become so dominated by the management over time that their supervisory role becomes ineffective, especially where there is a collective action problem, that is, the cost of supervision outweighs the benefits for small stakeholders). Subsequent scholars have extended these arguments to conflicts with top managers, such as CEOs. See, e.g., George W. Dent, Jr., *Academic in Wonderland: The Team Production and Director Primacy Models of Corporate Governance*, 44 HOUS. L. REV. 1213, 1215 (2008) ("Berle and Means are still right: the status quo is not director primacy, shareholder primacy, or team production, but CEO primacy—governance by managers largely for their own benefit."); Robert W. Hamilton, *Corporate Governance in America 1950-2000: Major Changes but Uncertain Benefits*, 25 J. CORP. L. 349, 350 (2000) ("Berle and Means thus concluded that the decision as to who was to be nominated was made by the CEO himself, or at least under his direct oversight or control."); Florence Shu-Acquaye, *The Independent Board of Directors and Governance in the United States: Where Is It Heading?*, 27 WHITTIER L. REV. 725, 734 n.34 (2006) ("Per the Berle and Means theory on separation of ownership and control, control of the board of directors ultimately resides in management (if not the CEO) . . .").

4 Dent, *supra* note 3 (framing the current debate on agency costs in corporate governance as one concerned mostly with boards and CEOs); see also Victor Brudney, *Corporate Governance, Agency Costs, and the Rhetoric of Contract*, 85 COLUM. L. REV. 1403 (1985); Henry Hansmann & Reinier Kraakman, *The End of History for Corporate Law*, 89 GEO. L.J. 439 (2001); Oliver Williamson, *Corporate Governance*, 93 YALE L.J. 1197 (1984). These works focus exclusively on top management and boards of directors.

5 A few scholars, though, have pointed out that current compensation schemes dissuade analysts from downgrading securities on a timely basis or from pricing securities correctly. E.g., Roni Michaely & Kent L. Womack, *Conflict of Interest and the Credibility of Underwriter Analyst Recommendations*, 12 REV. FIN. STUD. 653, 654 (1999); H.D. Vinod, *Conflict of Interest Economics and Investment Analyst Biases*, 70 BROOK. L. REV. 53, 69, 72 (2004).

act in conflict with interests of their firms, and that the increasing financial leverage of firms in the modern credit economy exacerbates the consequences of these conflicted actions. The Essay therefore argues for the importance of reducing secondary-management conflicts of interest.

The Essay's scope is limited to conflicts of interest between firms and secondary managers that could trigger the collapse of firms or financial markets.⁶ Secondary managers likely to have that power include those who structure, sell, or invest in market securities on behalf of the firm, such as analysts responsible for making decisions about the firm's investments. Similarly, the types of firms likely to suffer serious adverse effects from these conflicts include banks or other financial institutions whose assets are significantly invested in, or whose business is significantly concerned with structuring or selling, financial-market securities.⁷ This Essay's examples will therefore concentrate on secondary managers who structure, sell, or invest in market securities on behalf of financial institutions. Nonetheless, portions of this Essay might well have application to secondary managers in other types of firms.⁸

6 Thus, the Essay does not examine conflicts of interest (1) that are not between firms and secondary managers or (2) that could not trigger the collapse of firms or financial markets. The former category includes conflicts in the originate-to-distribute model of loan origination, conflicts between servicers and investors, conflicts among investors that make servicers reluctant to exercise the discretionary judgment needed to restructure the underlying mortgage loans, and rating agency conflicts that might affect the reliability of their ratings. For an analysis of these types of conflicts, see Schwarcz, *Protecting Financial Markets*, *supra* note 2, at 387-88, 392-93, 400-01. The latter category includes cultural identity conflicts, e.g., Regina F. Burch, *The Myth of the Unbiased Director*, 41 AKRON L. REV. 509 (2008), and conflicts in the ability of executives to contractually alter their legal duties to the firm, e.g., Aaron D. Jones, *Corporate Officer Wrongdoing and the Fiduciary Duties of Corporate Officers Under Delaware Law*, 44 AM. BUS. L.J. 475 (2007). For a study of the particular sources of law that regulate conflicts, see, for example, Melvin Aron Eisenberg, *The Architecture of American Corporate Law: Facilitation and Regulation*, 2 BERKELEY BUS. L.J. 167 (2005). For studies of whether conflicts in the process for determining CEO pay fall short of the ideal of an arm's length negotiation and, if so, what should be done about them, compare LUCIAN BEBCHUK & JESSE FRIED, *PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE COMPENSATION* 213-15 (2004) (arguing that boards should be made more responsive to shareholders by empowering shareholders to specifically approve certain "suspect" forms of compensation, to nominate directors, and to initiate changes to the corporate charter), with Lawton W. Hawkins, *Compensation Representatives: A Prudent Solution to Excessive CEO Pay*, 72 BROOK. L. REV. 449 (2007) (questioning whether CEO pay is in fact excessive, suggesting that CEOs may simply be using their legitimate bargaining power to command high pay, and arguing that large shareholders should appoint a "compensation representative" to the board to represent shareholder interests in negotiating executive pay).

7 Cf. SEC. STAFF REPORT: ENHANCING DISCLOSURE IN THE MORTGAGE-BACKED SECURITIES MARKETS (2003), <http://www.sec.gov/news/studies/mortgagebacked.htm> (reporting that investors in mortgage-backed and other securities are "overwhelmingly" financial institutions).

8 For example, if secondary-manager compensation in a large drug company is based on bringing new drugs to market, secondary managers would have an incentive to minimize reporting to senior management about a new drug's possible, latent long-term side effects—a scenario that has certain parallels to secondary managers of a large financial institution not fully reporting to senior management the long-term market risk exposure of a particular financial product. Cf. *infra* notes 10-13 and accompanying text (describing that latter scenario).

I. Analysis

A. *The Nature of the Conflict*

The conflict centers on compensation. Secondary managers are typically compensated for performing their assigned tasks, without regard to the long-term consequences of the tasks to their firms.⁹ For example, secondary managers who structure, sell, or invest in market securities on behalf of a firm are customarily compensated for those tasks even if, ultimately, the structure proves inadequate or the securities turn out to be poor investments.¹⁰

This conflict can create perverse incentives. For example, as the VaR, or value-at-risk, model for measuring investment-portfolio risk became more accepted, financial firms began compensating secondary managers not only for generating profits but also for generating profits with low risks, as measured by VaR.¹¹ Secondary managers therefore turned to investment products with low VaR risk profiles, like credit-default swaps that generate small gains but only rarely have losses.¹² The managers knew, but did not always explain to their seniors, that any losses that might eventually occur would be huge.¹³

Why, then, are secondary managers typically compensated without regard to long-term consequences of their performance? One reason is that secondary managers are subject to supervision and management control by top managers,¹⁴ who in turn are subject to the direction of the board of directors. Top managers therefore are supposedly responsible for ensuring, and thus

9 John C. Coffee, Jr., *Beyond the Shut-Eyed Sentry: Toward a Theoretical View of Corporate Misconduct and an Effective Legal Response*, 63 VA. L. REV. 1099, 1105 n.13 (1977); Flora Guidry et al., *Earnings-Based Bonus Plans and Earnings Management by Business-Unit Managers*, 26 J. ACCT. & ECON. 113, 113-15, 140 (1999); see also M.P. Narayanan, *Managerial Incentives for Short-Term Results*, 40 J. FIN. 1469, 1482-83 (1985) (explaining that managers may have incentives to pursue short-term gains).

10 Liam Plevin & Susanne Craig, *Deal Fees Under Fire amid Mortgage Crisis*, WSJ.COM, Jan. 18, 2008, http://www.realestatejournal.com/buysell/mortgages/20080118-plevin.html?mod=RSS_Real_Estate_Journal&rejrss=frontpage. A secondary manager who structures a deal, for example, may be compensated based on the fee generated by that deal. Charles Gasparino, *Analysts' Contracts Link Pay to Deal Work*, WALL ST. J., May 6, 2002, at C1; see also ROBERT G. ECCLES & DWIGHT B. CRANE, *DOING DEALS: INVESTMENT BANKS AT WORK* 173-75 (1988) (describing analysts' deal-based bonuses).

11 Joe Nocera, *Risk Mismanagement*, N.Y. TIMES, Jan. 4, 2009 (Magazine), at 24, 26, 46.

12 The VaR model typically excluded losses that have less than a one percent (or, in some cases, five percent) likelihood of occurring within the model's limited time frame. *Id.* at 46.

13 *Id.*; cf. Henry T.C. Hu, *Misunderstood Derivatives: The Causes of Informational Failure and the Promise of Regulatory Incrementalism*, 102 YALE L.J. 1457, 1492 (1993) (arguing that a "person engaged in derivatives operations may emphasize rewards and downplay risks" because of the income incentives).

14 Cf. *supra* note 5 and accompanying text (observing that this same rationale appears to explain why scholars have largely ignored conflicts of interest between a firm and its secondary managers).

monitoring, that the tasks performed by secondary managers take into account long-term consequences to the firm.¹⁵

The recent financial crisis has graphically demonstrated, though, that the conflict sometimes causes secondary managers to act in ways that create adverse long-term consequences to their firms, despite top management monitoring and supervision. The next part of this Essay examines why.

B. *Complexity Causes Overreliance on Signals, Making the Conflict Worse*

Why does monitoring and supervision by top management fail to prevent secondary managers from acting in conflict with their firms? I believe the answer is rooted in the increasing complexity of financial markets and of market securities,¹⁶ which causes overreliance on signals.¹⁷ Such overreliance, in turn, worsens the conflict, making secondary managers more likely to act on the conflict and also making it difficult for top managers to monitor secondary-management action properly.¹⁸

Complexity causes overreliance on signals. Consider first why complexity causes overreliance on signals. In the face of complexity, human beings often resort to simplifying heuristics.¹⁹ For example, even though people reach maturity by different ages, the legal age for alcohol purchase in the United States is fixed at twenty-one for everyone. The heuristic here, or the rule of thumb, is that by the age of twenty-one a person is able to consume alcohol responsibly. In the context of structuring, selling, or investing in complex

15 Although top managers who themselves might have conflicts with the firm should not, in theory, be conflicted regarding their managerial obligations to restrain secondary-management conflicts, the conflicts sometimes could coincide. See, e.g., E-mail from William W. Bratton, Peter P. Weidenbruch, Jr. Professor of Bus. Law, Georgetown Univ. Law Ctr., to author (Dec. 28, 2008, 02:48 PM EST) (on file with author) ("The [compensation] incentives [for secondary and top management] haven't been much different in the recent [business] environment.").

16 For an analysis of this increasing complexity, see Steven L. Schwarcz, *Regulating Complexity in Financial Markets*, 87 WASH. U. L. REV. (forthcoming 2009) (manuscript at 11-24, on file with the *Yale Journal on Regulation*) [hereinafter, Schwarcz, *Regulating Complexity*].

17 See *infra* notes 19-20 and accompanying text (discussing overreliance on signals represented by rating-agency ratings and mathematical models).

18 I believe that overreliance on signals due to conflicts between a firm and its secondary managers can also explain failures of the recent financial crisis that have been attributable to other causes. For example, many commentators attribute the lowered investing standards to the originate-and-distribute model of mortgage loan origination. See, e.g., Steven L. Schwarcz, *The Future of Securitization*, 41 CONN. L. REV. (forthcoming May 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1300928 [hereinafter Schwarcz, *The Future of Securitization*]. I believe, in contrast, that the same overreliance described above explains why firms invested in investment-grade rated mortgage-backed securities originated by others.

19 See, e.g., Anuj K. Shah & Daniel M. Oppenheimer, *Heuristics Made Easy: An Effort-Reduction Framework*, PSYCHOL. BULL., Mar., 2006, at 207 (explaining behavioral psychology experiment demonstrating when individuals employ heuristics); see also Cass R. Sunstein, *A Behavioral Analysis of Law*, 64 U. CHI. L. REV. 1175 (1997) (discussing biases and heuristics in the legal context).

market securities, these heuristics include the “signals” provided by rating-agency ratings and by mathematical models.²⁰

As the discussion below shows, such reliance—or “overreliance,” because the signal is an imperfect indicator of the underlying complexity—can worsen the conflict between a firm and its secondary managers by making such managers more likely to act in conflict with the firm and also by making it difficult for top managers to monitor secondary-management action adequately.

Overreliance makes secondary managers more likely to act in conflict with their firms. Because secondary managers are compensated for performing specific tasks without regard to long-term consequences to the firm,²¹ they are tempted to take a relatively short-term view when performing tasks. This temptation makes secondary managers especially likely to overrely on signals, particularly when the signals align their performance with their economic benefit.²² Overreliance then makes those managers more likely to act in conflict with their firms.

In the recent financial crisis, for example, secondary managers overrelied on signals, in the form of rating-agency ratings and mathematical models, which aligned secondary-manager performance and economic benefit. Thus, “[a] lot of institutional investors bought [mortgage-backed] securities substantially based on their ratings [without fully understanding what they bought], in part because the market has become so complex.”²³ Similarly, there “was an enormous faith in the market’s ability to analyze and measure risk” through mathematical models.²⁴

That overreliance by secondary managers was clearly in conflict with the long-term interests of their firms. Although ratings provide a useful yardstick by which to compare the safety of a debt security, ratings are imperfect measures, not even taking into account the possibility of fraud.²⁵ In the recent financial crisis, many mortgage-backed securities turned out to be incorrectly rated.²⁶ Similarly, although mathematical models can bring insight and clarity if

20 See *infra* notes 22-24 and accompanying text.

21 See *supra* notes 9-10.

22 I am not claiming, nor do I necessarily believe, that most secondary managers fraudulently or even consciously will act contrary to their firms’ long-term interests.

23 Aaron Lucchetti & Serena Ng, *Credit & Blame: How Rating Firms’ Calls Fueled Subprime Mess*, WALL ST. J., Aug. 15, 2007, at A10. For a discussion of rating agencies and their ratings, see Steven L. Schwarcz, *Private Ordering of Public Markets: The Rating Agency Paradox*, 2002 U. ILL. L. REV. 1 [hereinafter Schwarcz, *Private Ordering of Public Markets*].

24 Karl S. Okamoto, *After the Bailout: Regulating Systemic Moral Hazard* 23 (Oct. 30, 2008) (unpublished manuscript, on file with author); see also *supra* notes 11-13 and accompanying text (discussing reliance on the VaR model).

25 Schwarcz, *Private Ordering of Public Markets*, *supra* note 23, at 6 (observing that rating agencies do not rate for fraud).

26 See, e.g., *Turmoil in the U.S. Credit Markets: The Genesis of the Current Economics Crisis: Hearing Before the S. Comm. on Banking, Housing and Urban Affairs*, 110th Cong. (2008) (statement of Eugene Ludwig, Chief Executive Officer, Promontory Financial Group); see also Eugene A. Ludwig, Remarks at International Conference of Banking Supervisors (Sept. 25, 2008), available at <http://www.promontory.com/assets/0/78/110/112/79f60323-36f6-4983-babd-61274c17c373.pdf>.

the model is realistic and the inputted data are reliable, they can be misleading if the model is unrealistic or the inputted data are unreliable.²⁷ In the recent financial crisis, it was not only the VaR model that was misleading;²⁸ the cash-flow models underlying many mortgage-backed securities also were misleading because they relied on incorrect assumptions and data.²⁹

Overreliance makes it difficult for top managers to monitor secondary-management action adequately. Overreliance also makes it difficult for top managers to monitor secondary-management action adequately. In the face of complexity, top managers, like secondary managers, will be tempted to overrely on simplifying heuristics, like the signals provided by ratings and mathematical models. Although top managers will not be as likely as secondary managers to overrely due to conflicts, top managers might overrely for another reason: where the task being performed is highly technical, top managers will know less, and thus find the task more complex, than would secondary managers.

Consider this Essay's example of a secondary manager who structures, sells, or invests in complex market securities on behalf of his firm. This manager typically will have considerable technical training or experience regarding the securities.³⁰ Yet even with that training and experience, he probably will not completely understand everything about those securities.³¹ The top manager supervising him is likely to know even less, though. If, therefore, the secondary manager recommends that the firm invest in a given amount of those securities rated investment-grade,³² the top manager will have little basis to veto that recommendation.³³ Similarly, top managers will probably have little expertise to go beyond VaR or other mathematically modeled risk profiles.³⁴

27 Schwarcz, *The Future of Securitization*, *supra* note 18.

28 See *supra* notes 11-13 and accompanying text.

29 Ludwig, *supra* note 26, at 3 (observing that now "it is widely accepted" that these models relied on "insufficient data and faulty assumptions").

30 For example, the Bureau of Labor Statistics suggests that the minimum level of academic training for financial managers is a "bachelor's degree in finance, accounting, or a related field." Bureau of Lab. Stat., *Occupational Outlook Handbook, Financial Managers* (2008-09 ed.), <http://www.bls.gov/oco/ocos010.htm>.

31 See Schwarcz, *Regulating Complexity*, *supra* note 16.

32 The term "investment grade" was originally used by various regulatory bodies in the United States to connote obligations eligible for investment by banks, insurance companies, and other financial institutions. Over time, this term gained widespread acceptance throughout the investment community. Schwarcz, *Private Ordering of Public Markets*, *supra* note 23, at 7-8.

33 This assumes, of course, that the interest rate on those securities is roughly commensurate with the investment grade rating.

34 Cf. Nocera, *supra* note 11, at 46 (claiming that the VaR model obscured from senior managers the extent of potential future liability from CDS products).

The complexity of modern financial markets, and resulting overreliance on signals such as ratings and models, thus makes it difficult for top managers to monitor secondary-management action adequately.

C. *Financial Leverage Exacerbates Problems Caused by Overreliance*

This Essay so far has demonstrated that the increasing complexity of financial markets and the securities traded therein makes secondary managers more likely to act in conflict with interests of their firms. I now show that the increasing financial leverage of firms in the modern credit economy exacerbates the consequences of these conflicts.

Increased financial leverage means that a firm will be less financially robust. Absent leverage, a firm “can absorb losses linearly, dollar for dollar.”³⁵ The less leverage, the less likely it is, other factors being equal, that a firm would fail to pay its debts as they mature.³⁶ When a firm is highly leveraged, though, losses beyond a certain level—depending on the firm’s size and leverage—will precipitously degrade its ability to pay its debts.³⁷ Therefore, if a highly leveraged firm suffers significant losses because of the conflict with its secondary managers—as happened to many financial institutions in the recent financial crisis³⁸—the firm may well default.³⁹

The consequences of the conflict can go even further. Increasing leverage increases the risk that one firm’s failure will systemically trigger failures not only of other highly leveraged, and thus less financially robust, firms but also of markets themselves.⁴⁰ This too occurred in the recent financial crisis. In part because of conflicts between financial institutions and their secondary managers, many financial institutions invested in substantial amounts of risky but investment-grade-rated mortgage-backed securities.⁴¹ When some of these

35 Schwarcz, *Systemic Risk*, *supra* note 1, at 223.

36 *Id.* at 224.

37 *Id.*

38 See Keith Darcy, *Banking on the American Dream*, FIN. SERVICES TECH., Sept. 2008, available at <http://www.usfst.com/article/Issue-9/Risk-Management-AND-BCDR/Banking-on-the-American-Dream/> (discussing losses throughout the financial industry due to conflicts of interest); *Lehman Notes Investigation: Vernon Healy Law Firm Files First Arbitration Claim Against UBS on Behalf of Investor Who Purchased Lehman Notes Sold by UBS*, BLOOMBERG, Jan. 27, 2009, <http://www.bloomberg.com/apps/news?pid=conewsstory&refer=conews&tkr=LEH%3AUS&sid=aYnLGv5JNrzk> (describing a filed arbitration claim asserting that a conflict of interest led UBS to recommend investments that led to large losses).

39 Lehman Brothers defaulted, for example, and was forced to declare bankruptcy. Andrew Ross Sorkin, *Lehman Files for Bankruptcy; Merrill Is Sold*, N.Y. TIMES, Sept. 15, 2008, at A1. AIG likely would have defaulted without government intervention. Matthew Karnitschnig et al., *U.S. To Take Over AIG in \$85 Billion Bailout; Central Banks Inject Cash as Credit Dries Up*, WALL ST. J., Sept. 16, 2008, at A1.

40 See Schwarcz, *Systemic Risk*, *supra* note 1, at 224.

41 See Schwarcz, *Understanding the ‘Subprime’ Financial Crisis*, *supra* note 1. These conflicts between financial institutions and their secondary managers resembled those discussed *supra* notes 10-13 and accompanying text: secondary managers who knew that investments in these mortgage-

securities started defaulting or being downgraded because of defaults on underlying subprime mortgage loans, investors started losing confidence in ratings and avoiding debt securities as investments.⁴² With fewer investors, the price of debt securities started falling, which in turn required firms using debt securities as collateral to mark them to market and put up cash.⁴³ Firms had to sell more securities to raise the cash, causing market prices to plummet even further downward in a death spiral.⁴⁴ The collapse in market prices meant that banks and other financial institutions holding mortgage-backed securities had to write down their value, causing these highly leveraged institutions to appear even more financially risky, in turn triggering concern over counterparty risk: parties were afraid these institutions might default on their contractual obligations and therefore stopped dealing with them.⁴⁵ As a result, the credit markets shut down, severely impacting the real economy.⁴⁶

D. Finding Solutions

The analysis above has shown that conflicts of interest between firms and their secondary managers are no longer harmless. To the contrary, increasing leverage and financial complexity make these conflicts dangerous to both firms and financial markets. This Essay next examines possible solutions.

Limiting conflicts. The most direct way to limit conflicts in our case is by aligning incentives. Because compensation is at the root of the conflict between firms and their secondary managers, the most effective way to align incentives is to tie secondary-manager compensation to long-term interests of the firm. This could be done in various ways.

For example, a firm might retroactively recover (“clawback”) compensation paid to secondary managers who have structured, sold, or invested in market securities on behalf of the firm if, within some time period, the structure proves inadequate or the securities turn out to be poor investments.⁴⁷ Similarly, a firm might pay a portion of a secondary manager’s

backed securities were risky did not always explain the full extent of the risk to their seniors, who overrelied on the investment-grade ratings of the securities.

42 Schwarcz, *Understanding the ‘Subprime’ Financial Crisis*, *supra* note 1.

43 *Id.*

44 *Id.*

45 *Id.*

46 *Id.*

47 Cf. Scott Harshbarger & Goutam U. Jois, *Looking Back and Looking Forward: Sarbanes-Oxley and the Future of Corporate Governance*, 40 AKRON L. REV. 1, 7 (2007) (proposing that firms enact aggressive “clawback” provisions to keep CEOs accountable); Emergency Economic Stabilization Act of 2008 (EESA), Pub. L. No. 110-343, § 111(b)(2)(B) (to be codified at 12 U.S.C. § 5221(b)(2)(B)) (proposing clawback of compensation for a firm’s five most highly paid executives). This approach would not work if a secondary manager receives such large amounts of compensation that, even if a portion can be clawed back, the manager will be financially independent of the firm. It is unlikely, though not impossible, that secondary managers will receive such high compensation.

compensation contingently over time or in the form of equity securities with long-term lock-down constraints on selling the securities.⁴⁸ The amount of compensation subject to clawback or paid contingently or in equity must be material enough in context to affect secondary-management incentives. In determining that amount, a firm will have to take into account, of course, how the deferred, contingent, or equity compensation will affect the firm's ability to compete for the best secondary managers. A firm also should consider timing. Too short a time frame may not sufficiently align long-term incentives, whereas too long a time frame may run into the "availability bias": individuals overestimate the importance of events that are imminent, such as receiving a portion of the compensation now, and underestimate events that are remote, such as contingently receiving compensation in the future.⁴⁹

Any such alignment of compensation incentives with long-term interests of the firm would also have to address the compensation of top managers supervising the secondary managers. Although top management should be responsible for monitoring and ensuring that the tasks performed by secondary managers take into account long-term consequences to the firm,⁵⁰ top managers themselves may have conflicts that induce them to ignore those long-term consequences.⁵¹ For example, a top manager supervising a secondary manager may get paid based on the firm's (or a business group's) short-term profitability, which is materially driven by the secondary manager's work.⁵² In these cases, top management compensation should also be aligned with the firm's long-term interests—at least insofar as top management conflicts could undermine monitoring of secondary management.⁵³

48 E-mail from William W. Bratton to author, *supra* note 15 (suggesting paying secondary managers partly through equity; and observing that although long-term lock-downs on selling the equity would not have prevented the recent financial crisis, that strategy "would have imported some risk aversion and so would not have hurt").

49 See, e.g., John C. Coffee, Jr., *What Caused Enron? A Capsule Social and Economic History of the 1990s*, 89 CORNELL L. REV. 269, 294-95 (2004) (citing Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES (1982)); Sunstein, *supra* note 19, at 1188 (observing that people tend to think that risks are more serious when an incident is readily called to mind or "available").

50 See *supra* text accompanying note 15.

51 Cf. Michael Lewis & David Einhorn, Op-Ed., *The End of the Financial World As We Know It*, N.Y. TIMES, Jan. 4, 2009, at WK9 (discussing the "tyranny of the short term"); *supra* note 15 and accompanying text (observing that although top managers who themselves might have conflicts with the firm should not, in theory, be conflicted regarding their managerial obligations to restrain secondary-management conflicts, the conflicts sometimes could coincide).

52 Former top AIG executives describe Joseph Cassano, the president of AIG-FP, the AIG affiliate that brought AIG down through its credit-default-swap trading, as a person who was making a fortune on those swaps and who resisted AIG audits. See Panel II of a Hearing of the House Oversight and Government Reform Committee on the Cause and Effects of the AIG Bailout Before the H. Oversight and Government Reform Comm., 110th Cong. (2008) (reported in Fed. News Service, Oct. 7 (2008)).

53 This Essay does not engage the larger issue of how top manager compensation should be aligned with shareholder interests. For discussion of that issue, compare BEBCHUK & FRIED, *supra* note 6 (arguing that top managers can use existing governance structures to obtain excessively high incentive pay, and that shareholders should be empowered to prevent this), with Michael C. Jensen & Kevin J.

Another way a firm can align incentives is to announce a policy to terminate secondary managers who structure market securities that later prove inadequate or who sell or invest in market securities that later turn out to be poor investments. This approach, however, may not be as effective as aligning compensation incentives. Individuals overestimate the importance of imminent events, such as having a job and being paid a bonus, and underestimate events that are remote, such as the possibility of being fired at a future date.⁵⁴ Individuals in industries with high job turnover may even expect to be at different jobs before the success of an investment is likely to be known.⁵⁵ Furthermore, secondary managers may feel, and in fact be, secure from being fired if many similarly situated secondary managers are acting the same way.⁵⁶ In the recent financial crisis, for example, secondary managers often recommended investments in highly complex mortgage-backed securities they did not fully understand,⁵⁷ apparently feeling safe in following the herd.

Conflicts also can be limited by better monitoring.⁵⁸ This might include better monitoring by top management.⁵⁹ It also might include, for example, hiring technically trained “control” officers who do not have conflicts to supervise relevant aspects of the quality of tasks performed by secondary managers.⁶⁰ This could be very expensive, though, because any control officer so hired would face the prospect of losing expertise over time.⁶¹

Murphy, *Performance Pay and Top-Management Incentives*, 98 J. POL. ECON. 225 (1990) (arguing for equity-based compensation of top management). See also Stephen M. Bainbridge, Book Review Essay, *Executive Compensation: Who Decides?*, 83 TEX. L. REV. 1615 (2005) (reviewing this controversy); William W. Bratton, Book Review, *The Academic Tournament over Executive Compensation*, 93 CAL. L. REV. 1557 (2005) (same).

54 Cf. sources cited *supra* note 49 (discussing how individuals view different time horizons).

55 Steven L. Schwarcz, *Rethinking the Disclosure Paradigm in a World of Complexity*, 2004 U. ILL. L. REV. 1, 14 (observing that analysts who have jobs with limited time horizons may have low accountability).

56 Cf. *id.* at 14 (discussing findings by Paul M. Healy and Krishna Palepu that investment-fund managers who, believing a stock is overvalued, nonetheless follow the crowd will not be blamed if the stock ultimately crashes).

57 Schwarcz, *Understanding the ‘Subprime’ Financial Crisis*, *supra* note 1.

58 Cf. Kimberly D. Krawiec, *The Return of the Rogue*, 51 ARIZ. L. REV. 127, 128 (2009) (“[D]ebilitating losses at many financial institutions in the wake of the current credit crisis . . . have been blamed to a large extent . . . on lax internal controls and oversight . . .”).

59 See *supra* notes 49-53 and accompanying text.

60 This type of supervision is very common in accounting firms, for example. See, e.g., Lawrence A. Poneman, *Practicing Public Accounting in an Unlicensed, Unregulated Environment*, C.P.A. J., Aug. 1996, available at <http://www.nysscpa.org/cpajournal/1996/0896/public82f96.htm> (discussing the need for internal controls, including “adequate supervision” and “review of work,” to address conflicts within accounting firms).

61 Schwarcz, *Rethinking the Disclosure Paradigm*, *supra* note 55, at 14-15 (observing that even a technically trained analyst will lose expertise over time if no longer employed doing market deals). Based on his experience as a former law-firm partner, the author observes, albeit as an imperfect analogy, that the most highly respected partners of law firms typically serve from time to time on an opinions committee to monitor their peer partners when giving legal opinions on behalf of the firm—perhaps a firm’s most sensitive area of exposure to liability. See generally Steven L. Schwarcz, *The*

Improving the accuracy of signals. Yet another way to help mitigate the conflict of interest between a firm and its secondary managers might be to try to improve the accuracy of signals, such as rating-agency ratings or risk models. The viability of this type of approach would be highly fact-dependent.

This approach also might have unintended consequences. If the accuracy of a signal is not improved as much as the perception of the signal's accuracy, overreliance may actually increase. For example, if ratings are perceived to be highly accurate and no longer subject to exceptions (like fraud), secondary managers will rely even more on ratings. But if the accuracy of ratings has not increased commensurately to the perception, they will be overrelying.⁶² Remember that the widespread acceptance of the VaR model for assessing risk contributed to management overreliance.⁶³

Should solutions be market-driven or regulatory? It therefore appears that the most effective way to address the conflict between firms and their secondary managers is to align secondary-management compensation incentives with the long-term interests of the firm. To what extent should this be left to the market, and to what extent should it be imposed by regulation?

Firms clearly are in a better position than government regulators to determine how best to align secondary-management compensation incentives with their long-term interests.⁶⁴ Furthermore, firms will want to align those incentives for their own long-term survival.⁶⁵ There may, however, be a collective-action problem that individual firms will be unable to solve: any firm that employs a deferred or contingent (or equity) compensation scheme will be disadvantaged in its ability to compete for the best secondary managers.⁶⁶

Limits of Lawyering: Legal Opinions in Structured Finance, 84 TEX. L. REV. 1, 9-14 (2005) (describing legal opinions). Because partners on opinions committees usually devote only a small portion of their time to that task, their transactional expertise is not generally impaired. This raises the question whether highly respected secondary managers of financial firms might serve the same type of function, at least for selected secondary-management decisions. One important distinction, though, is that law-firm partners—who have made substantial investments in their firms and who may well be personally responsible, if the firm fails, for firm liabilities such as rent and bank debt—are likely to be much more concerned than secondary managers about their firm's viability. To some extent, perhaps, this distinction might be partially bridged by specially compensating secondary managers of corporations who serve in this capacity.

62 In this context, query the extent to which ratings that are perceived as imperfect create incentives for investor monitoring. Cf. Lucian Arye Bebchuk & Jesse M. Fried, *The Uneasy Case for the Priority of Secured Claims in Bankruptcy*, 105 YALE L.J. 857, 902-03 (1996) (explaining that a secured creditor with full priority has less incentive to monitor the borrower's behavior).

63 Nocera, *supra* note 11, at 46 (discussing management overreliance on VaR).

64 Consider which constituents of a firm would be motivated to impose these solutions. Shareholders and creditors are the parties whose interests in a firm would be primarily affected by its collapse. Cf. 11 U.S.C. §§ 726(a), 1129(a)(7)-(a)(8) (2006) (taking into account only holders of "claims" (creditors) and holders of "interests" (shareholders) in the bankruptcy process, although a firm's collapse can indirectly affect an even wider community of interests). They therefore would be the parties with the greatest incentive to impose solutions—by shareholders presumably through the types of directors elected and any organizational restrictions placed on management, and by creditors through covenants.

65 Cf. Krawiec, *supra* note 58.

66 See text accompanying *supra* note 49.

Government action may well be needed to help resolve this collective-action problem.

The question of whether these solutions should be market-driven or regulatory can also be viewed more broadly as a subset of the debate over regulating operational risk. Operational risk is term used to describe, among other things, the risk of loss resulting from inadequate or failed internal processes, people, and systems⁶⁷—and thus it would encompass the secondary-management conflicts discussed in this Essay.

Many observers believe that enforced self-regulation is the best way to handle operational risk.⁶⁸ But others argue that the answer is more nuanced. Kimberly Krawiec, for example, contends that for low-frequency, high-impact events, enforced self-regulation of operational risk is worse than no regulation at all because it lures parties into a false sense of confidence while costing money.⁶⁹

Although this debate provides an interesting way to frame the regulatory question, it is far from determinative. Risks arising from the conflict between a firm and its secondary managers are difficult to categorize as either low-frequency, high-impact—for which self-regulation is arguably inappropriate—or high-frequency, low-impact—for which self-regulation may well be more appropriate.

A final question is whether regulation, if adopted, should apply to all firms, including the large, sophisticated firms that, under the federal securities laws in the United States, are characterized as qualified institutional buyers (QIBs).⁷⁰ The securities laws generally assume that QIBs can and will protect their own interests—or at least their own investments.⁷¹ Anomalously, though, QIBs are the very investors who lost the most money in the recent financial crisis, much of it through bad investing.⁷² Any exclusion of QIBs from regulation would first have to explain that anomaly.⁷³ Furthermore, because QIBs would be as subject to the collective-action problem as any other firms,⁷⁴ any regulation addressing that problem should equally apply to them.

67 Krawiec, *supra* note 58, at 880, 884.

68 See *id.* at 880 and accompanying footnotes.

69 *Id.* at 881, 883.

70 QIBs are firms having more than \$100 million in the aggregate owned and invested in securities on a discretionary basis (or \$10 million in securities with respect to dealers). 17 C.F.R. § 230.144A (2008).

71 *Id.*

72 See, e.g., Jenny Anderson, *Wall St. Banks Confront a String of Write-Downs*, N.Y. TIMES, Feb. 19, 2008, at C1 (“[M]ajor banks . . . have already written off more than \$120 billion of losses stemming from bad mortgage-related investments.”); Randall Smith, *Merrill’s \$5 Billion Bath Bares Deeper Divide—After Big Write-Down Tied to Mortgage Debt, O’Neal Asserts Control*, WALL ST. J., Oct. 6, 2007, at A1 (reporting a total of \$20 billion in write-downs by large investment banks).

73 Consider, for example, to what extent, if any, this anomaly reflects the tragedy of the commons inherent in systemic risk. See *supra* note 1.

74 See *supra* notes 65–66 and accompanying text (discussing the collective-action problem).

III. Conclusion

This Essay focuses on rising agency costs associated with increasing complexity of financial markets and the securities traded therein and increasing leverage of firms in the modern credit economy. Increasing complexity makes it more likely that secondary managers will act in conflict with interests of their firms. Increasing leverage amplifies returns but, because it makes firms more susceptible to default, it also heightens the risk for losses from these conflicts. Scholars generally disregarded these conflicts in the traditional non-credit economy because the associated agency costs were relatively small.⁷⁵ In a highly leveraged firm, these agency costs can be large. Indeed, in the recent financial crisis, they contributed to the failure of financial institutions and the collapse of financial markets, resulting in massive losses. Conflict-of-interest oversight of secondary managers thus matters much more today than it did in the past.

The Essay argues that the most effective way to address the conflict is to align secondary-management compensation incentives with the long-term interests of the firm. Firms have incentives, and are in a better position than government regulators, to determine how best to achieve this alignment. Regulation may well be needed, though, to help resolve the collective-action problem that individual firms that attempt to align incentives will be disadvantaged in their ability to compete for the best secondary managers.⁷⁶

⁷⁵ See *supra* note 5 and accompanying text. But cf. *supra* note 8 (observing that secondary-management conflicts could have significant consequences even in the traditional non-credit economy).

⁷⁶ This Essay is normative and does not engage the question of whether secondary managers whose conflicted decisions ultimately led to losses in the recent financial crisis, or top managers supervising those secondary managers, should be liable under existing law for such losses. Any resolution to that question would have to take into account, among other things, such matters as causation and foreseeability. It seems unlikely, however, that one reasonably could foresee the sequence of events described in *supra* notes 41-46 and accompanying text.